AVIAN DISEASES 38:930–938, 1994

CONTENTS—JANUARY–MARCH 1994

A survey of birds in Denmark for the presence of Pneumocystis carinii
OSVALD PETER SETTNES, PEDER BO NIELSEN, RICHARD BUCALA, MICHAEL J. LINKE, AND MELANIE T. CUSHION 1

Effects of aflatoxin B_1 on chicken chondrocytes in culture
FAOUZI KICHOU AND MARY M. WALSER 11

Flow cytometric analysis of B cell and T cell subpopulations in specific-pathogen-free chickens infected with infectious bursal disease virus
J. RODENBERG, J. M. SHARMA, S. W. BELZER, R. M. NORDGREN, AND S. NAQI 16

Pathological studies of A/chicken/Alabama/7395/75 (H4N8) influenza virus in specific-pathogen-free laying hens
ADEL A. SHALABY, RICHARD D. SLEMONS, AND DAVID E. SWAYNE 22

Effect of genetic selection for increased body weight and sex of poult on antibody response of turkeys to Newcastle disease virus and Pasteurella multocida vaccines ..... R. E. SACCO, K. E. NESTOR, Y. M. SAIF, H. J. TSAI, AND R. A. PATTERSON 33

Salmonella enteritidis in eggs from commercial chicken layer flocks implicated in human outbreaks ..... D. J. HENZLER, E. EBEL, J. SANDERS, D. KRADEL, AND J. MASON 37

Non-reducible collagen cross-linking in cartilage from broiler chickens with tibial dyschondroplasia ..... M. W. ORTH, R. M. LEACH, A. C. VAILAS, AND M. E. COOK 44

Bordetella avium hemagglutination and motility mutants: isolation, characterization, and pathogenicity
KRISTI M. MOORE, MARK W. JACKWOOD, THOMAS P. BROWN, AND DAVID W. DREESEN 50

Effect of Eimeria tenella infection on resistance to Salmonella typhimurium colonization in broiler chicks inoculated with anaerobic cecal flora and fed dietary lactose ..... M. H. KOGUT, T. FUKATA, G. TELLEZ, B. M. HARGIS, D. E. CORRIER, AND J. R. DELOACH 59

Serotype specificity of B-haplotype influence on the relative efficacy of Marek's disease vaccines ..... LARRY D. BACON AND RICHARD L. WITTER 65

Invasion of epithelial cell monolayers by turkey strains of Pasteurella multocida ... MARGIE D. LEE, RICHARD E. WOOLEY, AND JOHN R. GLISSON 72

A retrospective immunohistochemical study of type II avian adenoviral infection in turkey, pheasant, and chicken tissues
S. D. FITZGERALD, W. M. REED, K. A. LANGHEINRICH, A. S. PORTER, AND L. A. LUMBERT 78

AVIAN DISEASES 38:930–938, 1994

CONTENTS—JANUARY–MARCH 1994

A survey of birds in Denmark for the presence of Pneumocystis carinii
OSVALD PETER SETTNES, PEDER BO NIELSEN, RICHARD BUCALA, MICHAEL J. LINKE, AND MELANIE T. CUSHION 1

Effects of aflatoxin B_1 on chicken chondrocytes in culture
FAOUZI KICHOU AND MARY M. WALSER 11

Flow cytometric analysis of B cell and T cell subpopulations in specific-pathogen-free chickens infected with infectious bursal disease virus
J. RODENBERG, J. M. SHARMA, S. W. BELZER, R. M. NORDGREN, AND S. NAQI 16

Pathological studies of A/chicken/Alabama/7395/75 (H4N8) influenza virus in specific-pathogen-free laying hens
ADEL A. SHALABY, RICHARD D. SLEMONS, AND DAVID E. SWAYNE 22

Effect of genetic selection for increased body weight and sex of poult on antibody response of turkeys to Newcastle disease virus and Pasteurella multocida vaccines ..... R. E. SACCO, K. E. NESTOR, Y. M. SAIF, H. J. TSAI, AND R. A. PATTERSON 33

Salmonella enteritidis in eggs from commercial chicken layer flocks implicated in human outbreaks ..... D. J. HENZLER, E. EBEL, J. SANDERS, D. KRADEL, AND J. MASON 37

Non-reducible collagen cross-linking in cartilage from broiler chickens with tibial dyschondroplasia ..... M. W. ORTH, R. M. LEACH, A. C. VAILAS, AND M. E. COOK 44

Bordetella avium hemagglutination and motility mutants: isolation, characterization, and pathogenicity
KRISTI M. MOORE, MARK W. JACKWOOD, THOMAS P. BROWN, AND DAVID W. DREESEN 50

Effect of Eimeria tenella infection on resistance to Salmonella typhimurium colonization in broiler chicks inoculated with anaerobic cecal flora and fed dietary lactose ..... M. H. KOGUT, T. FUKATA, G. TELLEZ, B. M. HARGIS, D. E. CORRIER, AND J. R. DELOACH 59

Serotype specificity of B-haplotype influence on the relative efficacy of Marek's disease vaccines ..... LARRY D. BACON AND RICHARD L. WITTER 65

Invasion of epithelial cell monolayers by turkey strains of Pasteurella multocida ... MARGIE D. LEE, RICHARD E. WOOLEY, AND JOHN R. GLISSON 72

A retrospective immunohistochemical study of type II avian adenoviral infection in turkey, pheasant, and chicken tissues
S. D. FITZGERALD, W. M. REED, K. A. LANGHEINRICH, A. S. PORTER, AND L. A. LUMBERT 78

Effect of bacitracin methylene disalicylate on turkey poult performance in the presence and absence of stunting syndrome
DARRELL W. TRAMPEL AND JERRY L. SELL 86

Effect of avian influenza virus infection on the phagocytic function of systemic phagocytes and pulmonary macrophages of turkeys
S. KODIHALLI, V. SIVANANDAN, K. V. NAGARAJA, D. SHAW, AND D. A. HALVORSON 93

Characterization of field isolates of Newcastle disease virus using antipeptide antibodies .... A. N. HODDER, Z.-Y. LIU, P. W. SELLECK, G. L. CORINO, B. J. SHIELL, D. C. GRIX, C. J. MORROW, AND J. J. GORMAN 103

Amplification of Salmonella chromosomal DNA using the polymerase chain reaction ..... ANH V. NGUYEN, MAZHAR I. KHAN, AND ZHIQIANG LU 119

Phenotypic expression of recombinant plasmids pKT107 and pHK11 in an avirulent avian Escherichia coli
RICHARD E. WOOLEY, LISA K. NOLAN, JOHN BROWN, PENELOPE S. GIBBS, AND DENISE I. BOUNOUS 127

Non-association of macrophage phagocytosis and oxidant stimulation with complement resistance and colicin V production by avian Escherichia coli
DENISE I. BOUNOUS, RICHARD E. WOOLEY, AND JOHN BROWN 135

Effect of normal intestinal flora of chickens on colonization by virulent colicin V-producing, avirulent, and mutant colicin V-producing avian Escherichia coli
RICHARD E. WOOLEY, JOHN BROWN, PENELOPE S. GIBBS, LISA K. NOLAN, AND KATHY R. TURNER 141

Characterization of an avirulent mutant of a virulent avian Escherichia coli isolate ..... LISA K. NOLAN, RICHARD E. WOOLEY, CATHERINE W. GIDDINGS, AND JOHN BROWN 146

Research Notes—

Acute renal failure as the cause of death in chickens following intravenous inoculation with avian influenza virus A/chicken/Alabama/7395/75 (H4N8) ..... D. E. SWAYNE, M. J. RADIN, T. M. HOEPF, AND R. D. SLEMONS 151

A survey into the prevalence of poultry helminths in northwest Arkansas commercial broiler chickens ..... K. I. WILSON, T. A. YAZWINSKI, C. A. TUCKER, AND Z. B. JOHNSON 158

Evaluation of cell-mediated immunocompetence in mature turkey breeder hens using a dewlap skin test ..... R. P. SCOTT AND T. D. SIOPES 161

An immunoperoxidase plaque assay for reticuloendotheliosis virus and its application to a sensitive serum neutralization assay
JAY G. CALVERT AND KEYVAN NAZERIAN 165

Case Reports—

Severe pododermatitis in broiler breeder hens housed on pressure-treated slats ..... J. E. SANDER, J. L. WILSON, P. B. BUSH, AND G. N. ROWLAND 172

Coccidiosis and necrotic enteritis in turkeys
R. DROUAL, H. L. SHIVAPRASAD, AND R. P. CHIN 177

Intestinal diverticulum in a turkey
MANUEL PIZARRO, THOMAS P. BROWN, PEDRO VILLEGAS, AND GEORGE N. ROWLAND 184

An outbreak of infectious laryngotracheitis in California broilers
J. A. LINARES, A. A. BICKFORD, G. L. COOPER, B. R. CHARLTON, AND P. R. WOOLCOCK 188

Tuberculosis in farmed rheas (Rhea americana)
S. ERNEST SANFORD, ABDUL J. REHMTULLA, AND GAYLAN K. A. JOSEPHSON 193

Herpesvirus hepatitis in two eagles in Spain ..... A. RAMIS, N. MAJÓ, M. PUMAROLA, D. FONDEVILA, AND L. FERRER 197

Bilateral duplication of the ceca in a domestic chicken
G. S. PANDEY, K. KOBAYASHI, H. HIRAI, AND M. M. MUSONDA 201

Guidelines for authors 203

CONTENTS—APRIL–JUNE 1994

AAAP tributes

Dr. Raymond A. Bankowski 205

Dr. Glenn Snoeyenbos 207

Dr. Frank Craig 209

Propagation of infectious laryngotracheitis virus in an avian liver cell line
WILLIAM M. SCHNITZLEIN, JANE RADZEVICIUS, AND DEOKI N. TRIPATHY 211

Production of monoclonal antibodies to the Bordetella avium 41-kilodalton surface protein and characterization of the hemagglutinin
KRISTI M. MOORE AND MARK W. JACKWOOD 218

Mucosal and systemic humoral immune response to Bordetella avium in experimentally infected turkeys
P. SURESH, L. H. ARP, AND E. L. HUFFMAN 225

Bacterial colonization and in vivo expression of F1 (type 1) fimbrial antigens in chickens experimentally infected with pathogenic Escherichia coli
CHARLES M. DOZOIS, NATHALIE CHANTELOUP, MARYVONNE DHO-MOULIN, ANNIE BRÉE, CLARISSE DESAUTELS, AND JOHN M. FAIRBROTHER 231

Effects of invert soap with 0.05% sodium hydroxide on infectious bursal disease virus . . J. SHIRAI, R. SEKI, R. KAMIMURA, AND S. MITSUBAYASHI 240

Comparative analysis of virus-induced polypeptides of an avirulent and a virulent strain of avian reovirus
MADHUSUDHAN ANNADATA AND VIKRAM N. VAKHARIA 244

Direct correlation between the titer of infectious bursal disease virus VP2-specific antibody and protection . . . . . T. NAKAMURA, Y. OTAKI, Z. LIN, T. NUNOYA, S. HOSHI, AND A. KATO 251

Effect of selected antibiotics and anticoccidials on Salmonella enteritidis cecal colonization and organ invasion in leghorn chicks
J. G. MANNING, B. M. HARGIS, A. HINTON, JR., D. E. CORRIER, J. R. DELOACH, AND C. R. CREGER 256

Mitogen-induced lymphocyte proliferation and interferon production following coccidia infection
A. MARTIN, H. S. LILLEHOJ, B. KASPERS, AND L. D. BACON 262

Characterization of isolates of avian haemophili from Brazil
P. J. BLACKALL, E. N. SILVA, T. YAMAGUCHI, AND Y. IRITANI 269

Effect of mannose on Salmonella typhimurium-mediated loss of mucosal epithelial integrity in cultured chick intestinal segments
R. E. DROLESKEY, B. A. OYOFO, B. M. HARGIS, D. E. CORRIER, AND J. R. DELOACH 275

Horizontal transmission of Salmonella enteritidis and effect of stress on shedding in laying hens . . . . . MASAYUKI NAKAMURA, NORIYUKI NAGAMINE, TOSHIO TAKAHASHI, SHOKO SUZUKI, MAYUMI KIJIMA, YUTAKA TAMURA, AND SHIZUO SATO 282

Protective effect of oral administration of killed Haemophilus paragallinarum serotype A on chickens . . . . . TOSHIHIRO NAKAMURA, SUMIO HOSHI, YOJI NAGASAWA, AND SUSUMU UEDA 289

Evaluation of possible alternatives to double-strength skim milk used to saturate drag swabs for Salmonella detection
O. O. OPARA, L. E. CARR, C. R. TATE, R. G. MILLER, E. T. MALLINSON, L. E. STEWART, AND S. W. JOSEPH 293

Competitive exclusion of Salmonella enteritidis in leghorn chicks: Comparison of treatment by crop gavage, drinking water, spray, or lyophilized alginate beads . . . . . D. E. CORRIER, A. G. HOLLISTER, D. J. NISBET, C. M. SCANLAN, R. C. BEIER, AND J. R. DELOACH 297

Infectious laryngotracheitis virus in commercial hens: A serological study based on enzyme-linked immunosorbent assay
VERONICA Y. LEONG, J. R. GLISSON, R. S. RESURRECCION, AND I-H. N. CHENG 304

Lesions in broiler chickens following experimental intoxication with cobalt
G. J. Diaz, R. J. Julian, and E. J. Squires 308

A new selective enrichment procedure for isolating Pasteurella multocida from avian and environmental samples
Melody K. Moore, Lidija Cicnjak-Chubbs, and Robert J. Gates 317

Experimental infection of bobwhite quail with Indiana C adenovirus
S. W. Jack and W. M. Reed 325

Effect of prolonged administration of dietary capsaicin on broiler growth and Salmonella enteritidis susceptibility . . . . . A. P. McElroy, J. G. Manning, L. A. Jaeger, M. Taub, J. D. Williams, and B. M. Hargis 329

Identification of common antigens of serotype 1 and serotype 3 Pasteurella multocida in poultry expressed in vivo . . . . C. Wang and J. R. Glisson 334

Isotype, specificity, and kinetics of systemic and mucosal antibodies to Campylobacter jejuni antigens, including flagellin, during experimental oral infections of chickens . . . . . S. Cawthraw, R. Ayling, P. Nuijten, T. Wassenaar, and D. G. Newell 341

Research Notes—

Evaluation of three water-suspensible formulations of fenbendazole against Ascaridia galli infection in broiler chickens
Jean E. Sander and Roger D. Schwartz 350

Effect of three commercially available adjuvants on the production of antibodies to Pasteurella multocida in broilers
L. B. McClimon, B. Glick, and J. W. Dick 354

Incidence of respiratory cryptosporidiosis in Georgia broilers: 1987–92
Mark A. Goodwin and John Brown 358

Characterization of two monoclonal antibodies directed against serovar A Haemophilus paragallinarum . . . . . P. J. Blackall, Y. Z. Zheng, M. Takagi, H. R. Terzolo, V. E. Sandoval, and E. N. Silva 361

Effect of protein restriction during brooding on spontaneous turkey cardiomyopathy . . . . . S. W. Breeding, W. A. McRee, M. D. Ficken, and P. R. Ferket 366

Serological survey of infections in waterfowl in the Guadalquivir Marshes (Spain) . . . . . R. J. Astorga, M. J. Cubero, L. León, A. Maldonado, A. Arenas, M. C. Tarradas, and A. Perea 371

Case Reports—

Clinical and pathological findings in young Georgia broiler chickens with oculofacial respiratory disease ("so-called swollen heads")
Mark A. Goodwin and W. Douglas Waltman 376

Hepatic lipidosis in turkeys
P. GAZDZINSKI, E. J. SQUIRES, AND R. J. JULIAN 379

Filariasis (Pelecitus sp.) in the cervical subcutaneous tissue of a pigeon with trichomoniasis ..... MANUEL PIZARRO, PEDRO VILLEGAS, ANTONIO RODRIGUEZ, AND GEORGE N. ROWLAND 385

Recurrent outbreaks of a cutaneous form of Pasteurella multocida infection in turkeys ..... D. D. FRAME, F. D. CLARK, AND R. A. SMART 390

Diazinon toxicity in broilers ..... D. L. HILL, C. I. HALL, J. E. SANDER, O. J. FLETCHER, R. K. PAGE, AND S. W. DAVIS 393

Book review 397

Guidelines for authors 398

CONTENTS—JULY–SEPTEMBER 1994

Altered colonizing ability for the ceca of broiler chicks by lipopolysaccharide-deficient mutants of Salmonella typhimurium ..... STEPHEN E. CRAVEN 401

Transfer of maternal anti-rotavirus IgG to the mucosal surfaces and bile of turkey poults ... SAMIA A. SHAWKY, Y. M. SAIF, AND JANET MCCORMICK 409

Inhibition of the in vitro development of Eimeria tenella in chick kidney cells by immune chicken splenocytes
T. K. MILLER, D. D. BOWMAN, AND K. A. SCHAT 418

Diurnal rhythms of plasma corticosterone concentrations in racing pigeons (Columba livia domestica) exposed to different light regimens, and the influence of frequent blood sampling ..... I. WESTERHOF, J. A. MOL, W. E. VAN DEN BROM, J. T. LUMEIJ, AND A. RIJNBERK 428

Sensitivity of the hypothalamic-pituitary-adrenal system of pigeons (Columba livia domestica) to suppression by dexamethasone, cortisol, and prednisolone ..... I. WESTERHOF, W. E. VAN DEN BROM, J. A. MOL, J. T. LUMEIJ, AND A. RIJNBERK 435

Identification and localization of glycoprotein B expression in lymphoid tissues of chickens infected with turkey herpesvirus ..... M. S. HOLLAND, R. F. SILVA, C. D. MACKENZIE, R. W. BULL, AND R. L. WITTER 446

Fumonisin mycotoxicosis in broilers. Weights and serum chemistry modifications ..... Y. ESPADA, R. RUIZ DE GOPEGUI, C. CUADRADAS, AND F. J. CABAÑES 454

Predictive value of multiple drag-swab sampling for the detection of Salmonella from occupied or vacant poultry houses ..... D. J. CALDWELL, B. M. HARGIS, D. E. CORRIER, J. D. WILLIAMS, L. VIDAL, AND J. R. DELOACH 461

Development and evaluation of a non-isotopically labeled DNA probe for the diagnosis of infectious laryngotracheitis ..... Douglas W. Key, Brenda C. Gough, J. Brian Derbyshire, and Éva Nagy 467

Analysis and characterization of Mycoplasma gallisepticum isolates from Pennsylvania
Penelope S. Gibbs, Stanley H. Kleven, and Mark W. Jackwood 475

Sensitivity of avian Eimeria spp. to seven chemical and five ionophore anticoccidials in five Belgian integrated broiler operations
Johan E. Peeters, Jef Derijcke, Mark Verlinden, and Ria Wyffels 483

Expression of Mycoplasma gallisepticum F-strain surface epitope
M. García and S. H. Kleven 494

Effect of bentonite incorporated in a feed ration with tilmicosin in the prevention of induced Mycoplasma gallisepticum airsacculitis in broiler chickens ..... Thomas R. Shryock, Paul R. Klink, Robin S. Readnour, and Lealon V. Tonkinson 501

Passive cross-protection provided by antisera directed against in-vivo-expressed antigens of Pasteurella multocida C. Wang and J. R. Glisson 506

Ultrastructural examination and cell count determinations of avian glomeruli from grossly normal and grossly swollen kidneys of broilers at slaughter
M. Puette, W. A. Crowell, and W. S. Hafner 515

Response of specific-pathogen-free turkeys to vaccines derived from marble spleen disease virus and hemorrhagic enteritis virus ..... J. M. Sharma 523

Infectious bursal disease viruses: molecular differentiation of antigenic subtypes among serotype 1 viruses ..D. J. Jackwood and R. J. Jackwood 531

Response of unimmunized and sporozoite-immunized chickens to challenge with avian Eimeria species: effects of intraperitoneal injection of Sephadex
P. C. Augustine 538

Differentiation of two strains of Mycoplasma gallisepticum with monoclonal antibodies and flow cytometry ..... J. D. May, S. L. Branton, S. B. Pruett, and A. J. Ainsworth 542

The pathogenesis of quail bronchitis
S. W. Jack, W. M. Reed, and T. Burnstein 548

Histological study of tibial dyschondroplasia-like lesion from light-type chicks fed cysteine-supplemented diets ..... Yisheng Bai and Mark E. Cook 557

Decreased egg production in turkeys experimentally infected with eastern equine encephalitis virus or Highlands J virus
James S. Guy, H. John Barnes, Martin D. Ficken, Lynda G. Smith, William H. Emory, and Dennis P. Wages 563

Experimental infection of young broiler chickens with eastern equine en-

cephalitis virus and Highlands J virus
JAMES S. GUY, H. JOHN BARNES, AND L. G. SMITH 572

Transmission of Salmonella typhimurium during hatching of broiler chicks
J. A. CASON, N. A. COX, AND J. S. BAILEY 583

In vivo evaluation of the pathogenicity of field isolates of infectious bronchitis virus ..... G. E. AVELLANEDA, P. VILLEGAS, M. W. JACKWOOD, AND D. J. KING 589

A rapid method for screening for Salmonella typhimurium in a chicken cecal microbial consortium using gene amplification
SURESH D. PILLAI, STEVEN C. RICKE, DAVID J. NISBET, DONALD E. CORRIER, AND JOHN R. DELOACH 598

Splenic granulomas in broiler chickens produced experimentally by inoculation with Eubacterium tortuosum .....
..... SCOTT HAFNER, BARRY G. HARMON, STEPHAN G. THAYER, AND S. MARK HALL 605

Research Notes—

The leukocyte response of Japanese quail to Rous sarcoma virus-induced tumors ..... M. E. JANES, R. K. BOWER, AND N. B. ANTHONY 610

Isolation and characterization of serum immunoglobulin classes of the ostrich (Struthio camelus) ... HILARY F. CADMAN, PATRICK J. KELLY, MILDRED DIKANIFURA, STUART D. CARTER, SALIM M. AZWAI, AND E. PAMELA WRIGHT 616

A serosurvey using enzyme-linked immunosorbent assay for antibodies against poultry pathogens in ostriches (Struthio camelus) from Zimbabwe
..... HILARY F. CADMAN, PATRICK J. KELLY, RARAMAI ZHOU, FRANS DAVELAAR, AND PETER R. MASON 621

Disease and management of backyard chicken flocks in Chitungwiza, Zimbabwe ..... PATRICK J. KELLY, DANIEL CHITAURO, CHRISTOPHER ROHDE, JOHN RUKWAVA, AGGREY MAJOK, FRANS DAVELAAR, AND PETER R. MASON 626

Case Reports—

Proventriculitis and ventriculitis associated with zygomycosis in ostrich chicks ..... J. S. JEFFREY, R. P. CHIN, H. L. SHIVAPRASAD, C. U. METEYER, AND R. DROUAL 630

Particles resembling circovirus in the bursa of Fabricius of pigeons .....
..... H. L. SHIVAPRASAD, R. P. CHIN, J. S. JEFFREY, K. S. LATIMER, R. W. NORDHAUSEN, F. D. NIAGRO, AND R. P. CAMPAGNOLI 635

Isolation of an adenovirus from an ostrich (Struthio camelus) causing pancreatitis in experimentally infected guinea fowl (Numida meleagris)
ILARIA CAPUA, RICHARD E. GOUGH, PAOLA SCARAMOZZINO, ROSSELLA LELLI, AND ANTONIO GATTI 642

Hemorrhagic enteritis by adenovirus-like particles in turkeys: a possible pathogenic mechanism ... J. C. GÓMEZ-VILLAMANDOS, J. CARRANZA, M. A. SIERRA, L. CARRASCO, J. HERVÁS, A. BLANCO, AND A. FERNÁNDEZ 647

Nutritional encephalomalacia in turkeys: diagnosis and growth performance D. R. KLEIN, M. N. NOVILLA, AND K. L. WATKINS 653

Aspergillus fumigatus keratitis with intraocular invasion in 15-day-old chicks B. J. BECKMAN, C. W. HOWE, D. W. TRAMPEL, M. C. DEBEY, J. L. RICHARD, AND Y. NIYO 660

Chlamydiosis in commercial rheas (Rhea americana) A. C. CAMUS, D.-Y. CHO, R. P. POSTON, D. P. PAULSEN, J. L. OLIVER, J. M. LAW, AND T. N. TULLY 666

Complicated infectious coryza outbreaks in Argentina V. E. SANDOVAL, H. R. TERZOLO, AND P. J. BLACKALL 672

Pet Bird Medicine: Case Report—

Hepatic hemosiderosis and Klebsiella bacteremia in a green aracari (Pteroglossus viridis) ..... RONALD B. WILSON 679

Guidelines for authors 682